

SunSplash

OPERATIONS MANUAL

Thank you for choosing a SunSplash® Series Overhead Projector. Dukane SunSplash Overhead Projectors are available in rugged steel or durable ABS plastic bases and a choice of 2000, 2200, 3000/2400 or 4000/3200 lumens. Features of each model vary and can include a closed or open head; a single, double or triple element lens; a wide angle lens and a lamp changer.

Because operation of all units is very similar, this manual covers all models in the Dukane SunSplash Series.



DUKANE

IMPORTANT SAFETY INSTRUCTIONS

When using your overhead projector, basic safety precautions should always be followed, including the following:

1. Read and understand all instructions before using.
2. Close supervision is necessary when any projector is used by or near children. Do not leave projector unattended while in use.
3. Care must be taken as burns can occur from touching hot parts.
4. Do not operate projector with a damaged cord or if the projector has been dropped or damaged — until it has been examined by a qualified service technician.
5. Position the cord so that it will not be tripped over, be pulled or contact hot surfaces.
6. If an extension cord is necessary, a cord with a current rating at least equal to that of the projector should be used. Cords rated for less amperage than the projector may overheat.
7. Always unplug projector from electrical outlet before cleaning and servicing and when not in use. Never yank cord to pull plug from outlet. Grasp plug and pull to disconnect.
8. Let projector cool completely before putting away.
9. To protect against the risk of electric shock, do not immerse this projector in water or other liquids.
10. To avoid the risk of electric shock, do not disassemble this projector, but take it to a qualified service technician when some service or repair work is required. Incorrect reassembly can cause electric shock when the projector is used subsequently.
11. The use of an accessory attachment not recommended by the manufacturer may cause a risk of fire, electric shock or injury to persons.
12. Connect this projector to a grounded outlet.
13. Disconnect this unit from its source of supply before replacing the projection lamp.

Additional lamp safeguards: never handle lamps with bare fingers; periodically inspect lamps, when they're turned off, for signs of blistering or blackening; insure proper action of the cooling system; turn off the projector immediately if the image becomes abnormally dim; never operate a projector with the lamp housing open; and make sure that the lamp itself is properly seated.

SAVE THESE INSTRUCTIONS

TABLE OF CONTENTS

Page

SPECIFICATIONS	1
ELECTRICAL SAFETY GROUNDING INSTRUCTIONS	1
INDEX OF FUNCTIONAL PARTS	2
SETUP/ASSEMBLY.....	3
OPERATION	4
CLEANING	4
SUNSPASH SERIES OHP SELECTION CHART	5/6
LAMP REPLACEMENT	7
For 2000 Lumen Models	7/8
For 3000 & 4000 Lumen Models	8/9
TROUBLESHOOTING	9
SERVICING	10
Shipping Information	10
Service	10
No Charge Warranty Repair	10
Information on Lamp Warranty	10
OPTIONAL ACCESSORIES	10
STORAGE	11
FRESNEL LENS REMOVAL	11
INTERNAL PARTS.....	12
LIFETIME LIMITED WARRANTY	Back Cover

SPECIFICATIONS

Following are features common to all SunSplash Series Overhead Projectors:

Focusing ... Rack and Pinion Focusing for Precise Image Adjustment
Dimensions 13" (W) x 15" (D) x 36" (H) or 38" (H) Max.
Mounting Holes For Roll Film Feed Attachment
Aperture 10.5" x 10.5"
Head Elevation Up to 30 Degrees
Power 120V AC, 60 Hz
Power Cord 3-Wire, Grounded, 10 Ft.
Safety Interlock..... Cuts off power when stage is opened
Cooling High efficiency fan and automatic thermal cutoff
to prevent overheating
Warranty Lifetime Limited

This Dukane Overhead Projector is a transmissive (lamp under stage) projector designed to project material on transparencies for audience viewing.

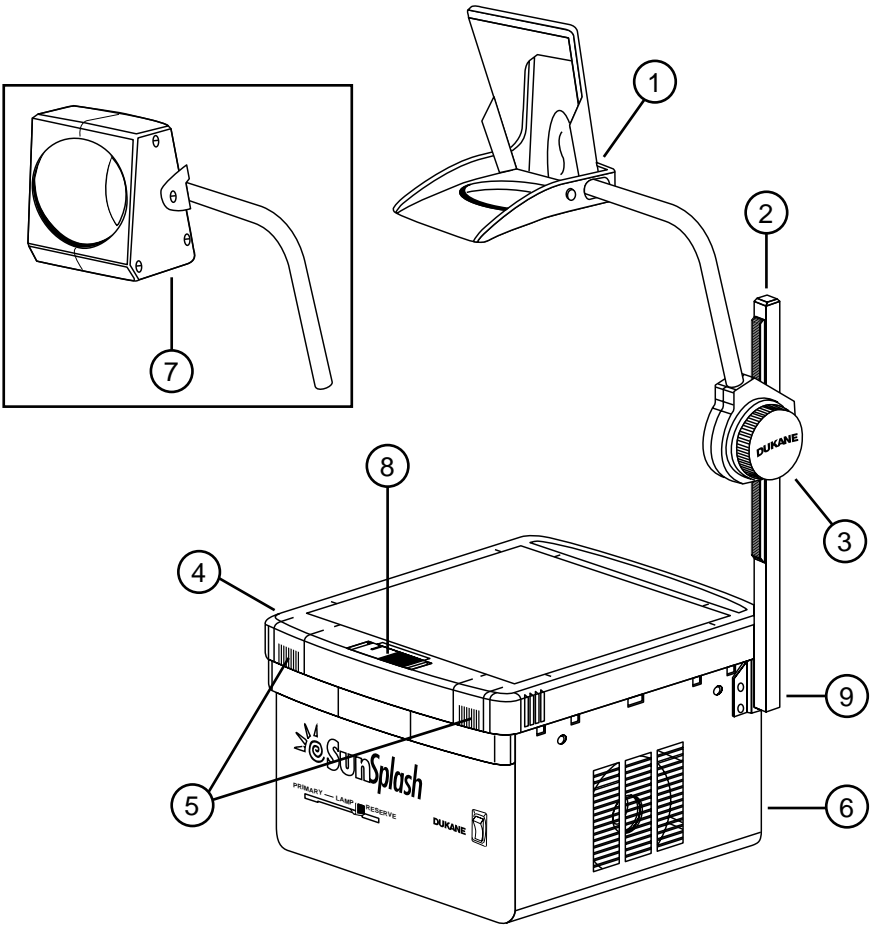
Your Dukane projector is designed to incorporate rugged simplicity with easy-to-use, efficient operation. With a minimum of routine care and maintenance, it will provide you with many years of dependable service.

ELECTRICAL SAFETY GROUNDING INSTRUCTIONS

This Class I product uses a three-wire power cord that grounds the product for your protection. Do not DEFEAT or REMOVE the grounding pin. If an extension cord is used, it must also be a three-wire type with an ampere rating equal or greater than the product's rating. The plug must be connected to a properly grounded three-terminal power receptacle. Connection to any other type of receptacle should be done only by a qualified electrician in accordance with local and/or national electrical codes.

INDEX OF FUNCTIONAL PARTS

A number of terms are used frequently in this instruction booklet. The OVERHEAD PROJECTOR will be easier to operate if you become familiar with the terms for the functional parts listed below:



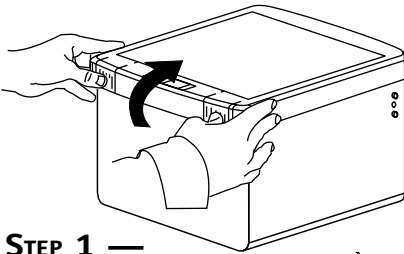
- 1. OPEN HEAD
- 2. MAST
- 3. FOCUS KNOB
- 4. STAGE
- 5. STAGE OPENING LATCH TABS

- 6. BASE
- 7. CLOSED HEAD
- 8. POWER SWITCH
- 9. MAST MOUNT

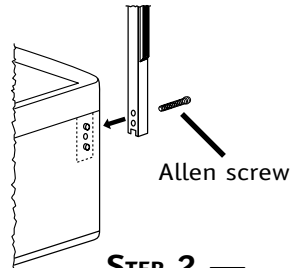
SETUP/ASSEMBLY

In order to protect the optical head during shipment, it and the mast have been packed apart from the base.

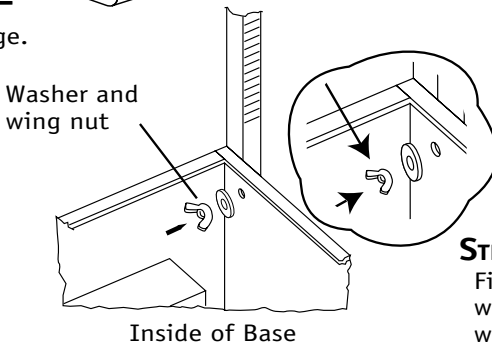
1. Remove the optical head/mast assembly and base from the shipping carton.
2. On plastic models, depress stage opening latch tabs on front of the stage and lift off stage (Step 1). Place stage aside.
3. Find the Allen head screw and the Allen wrench. (On plastic base models, find the Allen head screw, washer, wing nut and Allen wrench).
4. Take the mast and identify the lower end which has no plastic cap.
5. Position the mast open end so the 3 holes fit over the two alignment posts with the center hole being open (Step 2).
6. Insert the Allen screw from outside the unit into the mast. Turn screw tight with fingers. Further tighten with the 1/8" Allen wrench. On plastic base models, use the wing nut and washer on the inside of unit to tighten the Allen head screw (Step 3).
7. Replace stage on top of unit by aligning the rear edge. Push front down to lock into place.



STEP 1 —
Open stage.



STEP 2 —
Position Mast
on posts.

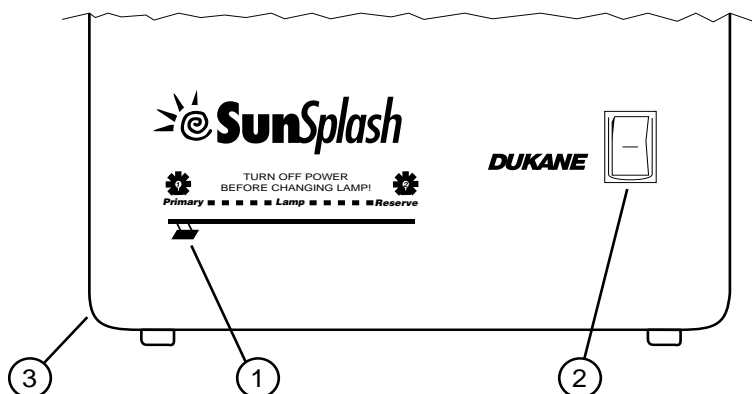


STEP 3 —
Fix Mast with
washer and
wing nut.

OPERATION

Place the projector on a firm level surface at a convenient operating height. Be sure vent areas of unit are not blocked. Plug the power cord into a 120V, 60 Hz AC outlet. Move power switch to ON position. Place a transparency on the stage and turn focus knob until image is in focus. Image elevation is adjusted by moving optical head up or down.

Models equipped with a lamp changer system allow change of lamp by sliding a lever.



1. **Lamp Changer** (2000 Lumen Series)
2. **High/Low Lamp Switch** (3000 or 4000 Lumen Series)
3. **Lamp Changer** (3000 or 4000 Lumen Series)

CLEANING

For best performance, keep your projector free of dust. Keep covered when not in use.

Cleaning: Use a soft, lint-free cloth to remove dust from stage glass and projection lens. Lens cleaner may be used on these components.

Mirrors: Do not attempt to clean mirrors with cleaning agents — use a soft lens brush to remove dirt.

Fresnel Lens: Use a soft, lint-free cloth or soft brush to remove dust. The Fresnel lens may be removed by pressing the two plastic latches.

SUNSPASH SERIES OHP SELECTION CHART

MODEL	BRIGHTNESS	LENS SYSTEM	LAMP/LAMP CHANGER	HOUSING
SP2123	2200 lumens	Open, single element with wide angle	EYB, 360W, 75 Hrs. / No	Durable ABS
SP2223	2200 lumens	Open, single element with wide angle	EYB, 360W, 75 Hrs. / No	Steel Constructed
SP2125	2200 lumens	Open, single element	EYB, 360W, 75 Hrs. / No	Durable ABS
SP2225	2200 lumens	Open, single element	EYB, 360W, 75 Hrs. / No	Steel Constructed
SP2226	2200 lumens	Open, single element	EYB, 360W, 75 Hrs. / Yes	Rugged Steel Constructed
SP2127	2000 lumens	Closed, single element with wide angle	EYB, 360W, 75 Hrs. / No	Durable ABS
SP2128	2000 lumens	Closed, single element with wide angle	EYB, 360W, 75 Hrs. / Yes	Durable ABS
SP2227	2000 lumens	Closed, single element with wide angle	EYB, 360W, 75 Hrs. / No	Steel Constructed
SP2133	2000 lumens	Closed, double element	EYB, 360W, 75 Hrs. / No	Durable ABS
SP2134	2000 lumens	Closed, double element	EYB, 360W, 75 Hrs. / Yes	Durable ABS
SP2233	2000 lumens	Closed, double element	EYB, 360W, 75 Hrs. / No	Steel Constructed
SP2234	2000 lumens	Closed, double element	EYB, 360W, 75 Hrs. / Yes	Steel Constructed
SP3123	3000/2400 lumens	Open, single element with wide angle	ENX, 360W, 75 Hrs. / No	Durable ABS
SP3127	3000/2400 lumens	Closed, single element with wide angle	ENX, 360W, 75 Hrs. / No	Durable ABS
SP3128	3000/2400 lumens	Closed, single element with wide angle	ENX, 360W, 75 Hrs. / Yes	Durable ABS
SP3134	3000/2400 lumens	Closed, double element	ENX, 360W, 75 Hrs. / Yes	Durable ABS
SP4123	4000/3200 lumens	Open, single element with wide angle	FXL, 410W, 50 Hrs. / No	Durable ABS
SP4223	4000/3200 lumens	Open, single element with wide angle	FXL, 410W, 50 Hrs. / No	Steel Constructed
SP4125	4000/3200 lumens	Open, single element	FXL, 410W, 50 Hrs. / No	Durable ABS
SP4225	4000/3200 lumens	Open, single element	FXL, 410W, 50 Hrs. / No	Steel Constructed
SP4127	4000/3200 lumens	Closed, single element with wide angle	FXL, 410W, 50 Hrs. / No	Durable ABS
SP4128	4000/3200 lumens	Closed, single element with wide angle	FXL, 410W, 50 Hrs. / Yes	Durable ABS
SP4233	4000/3200 lumens	Closed, double element	FXL, 410W, 50 Hrs. / No	Rugged Steel Constructed
SP4134	4000/3200 lumens	Closed, double element	FXL, 410W, 50 Hrs. / Yes	Durable ABS
SP4234	4000/3200 lumens	Closed, double element	FXL, 410W, 50 Hrs. / Yes	Steel Constructed
SP4136	4000/3200 lumens	Open, triple element	FXL, 410W, 50 Hrs. / Yes	Durable ABS
SP4236	4000/3200 lumens	Open, triple element	FXL, 410W, 50 Hrs. / Yes	Steel Constructed

LAMP REPLACEMENT

Lamp in projector:

- SP2xxx — 2000 lumen, uses a 360 watt EYB lamp, Dukane Part Number 456-186.
- SP4xxx — 4000 lumen, uses a 410 watt FXL lamp, Dukane Part Number 456-192.
- SP3xxx — 3000 lumen, uses a 360 watt ENX lamp, Dukane Part Number 458-188.



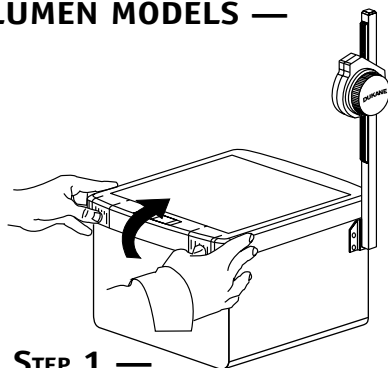
WARNING

Lamp and adjacent metal parts are hot. Allow lamp to cool before replacing. Glass components may shatter. Handle carefully.

Lamp replacement, SP2xxx units:

1. Open unit stage by depressing the latch tabs on front of stage and lifting (Step 1). Remove the stage.
2. Carefully pull out used lamp. Take caution since it may be hot. Allow time to cool (Step 2).
3. Push new lamp in socket until firmly seated. Avoid skin oil on bulb. Hold lamp with a cloth, tissue or gloved hand.
4. Replace stage by aligning rear edge and then pushing down the front until it locks into place.

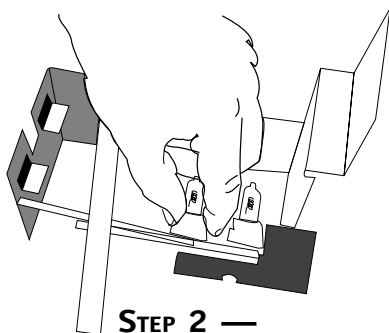
FOR 2000 LUMEN MODELS —



STEP 1 —

Open stage.

FOR 2000 LUMEN MODELS —



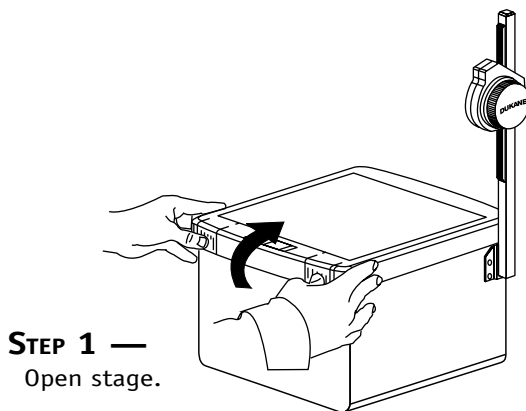
STEP 2 —

Carefully pull out bulb.

Lamp replacement, SP4xxx and SP3xxx units:

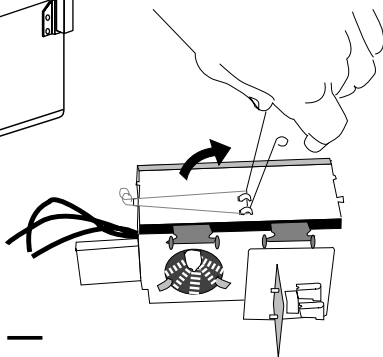
1. Open unit stage by depressing the latch tabs on front of stage and lifting (Step 1). Remove the stage.
2. Pull up retainer clip wires and rotate lamp cover into open position (Step 2).

FOR 3000 & 4000 LUMEN MODELS —



STEP 1 —

Open stage.

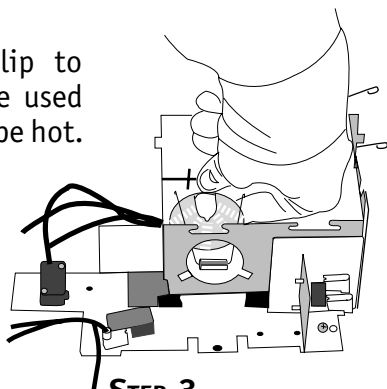


STEP 2 —

Pull up retainer clip and rotate open the lamp cover.

FOR 3000 & 4000 LUMEN MODELS —

3. Squeeze the lamp retainer clip to free lamp. Carefully pull up the used lamp. Take caution since it may be hot. Allow time to cool (Step 3).
4. Place new lamp in socket. Push down until firmly seated. Avoid skin contact. Oil from skin can cause discoloration of the lamp capsule or reflector. Hold lamp with a cloth, tissue or gloved hand.
5. Engage the lamp retainer clip.
6. Close lamp cover and replace cover retainer clips. Replace the stage by aligning rear edge and then pushing down front until it locks in place.



STEP 3 —

Open lamp retainer clip and pull out the lamp.

TROUBLESHOOTING

Symptom	Probable Cause	Solution
Neither lamp or fan operate	a. Unit unplugged b. No power at wall outlet c. Stage not closed d. Stage installed backwards e. Damaged part	a. Plug unit into outlet b. Verify outlet has power c. Close stage d. Install stage correctly e. Obtain service
No lamp, fan runs	a. Burned-out lamp b. Lamp changer not engaged c. Lamp not seated in receptacle	a. Replace lamp b. Slide changer arm into position c. Seat lamp
New lamp installed, lamp still not on, fan runs	a. Defective lamp b. Defective electrical system	a. Try another new lamp b. Obtain service
No fan, lamp on	a. Fan is obstructed b. Fan motor has burned out	a. Obtain service b. Obtain service

SERVICING

Shipping Information

If it becomes necessary to return a unit, please use the original packing material or pack securely to insure safe shipment.

Service

Service and parts are available from Dukane or from an approved service station. Contact the Dukane Service Department at 1-800-676-2487 to order parts or for the nearest service station. Service manuals are also available at a nominal cost.

No Charge Warranty Repairs

Your unit must be taken or sent to Dukane or to an approved service station with your sales receipt or invoice.

OPTIONAL ACCESSORIES

Lamps

EYB Lamp, 360 watt, (SP2xxx) Part No. 456-186

FXL LAMP, 410 watt, (SP4xxx) Part No. 456-192

ENX Lamp, 360 Watt, (SP3xxx) Part No. 456-188

Protective Dust Cover Part No. 128-63

Roll Film Adapter Kit Part No. 438-811

Acetate Roll (50 ft.) Part No. 310-6

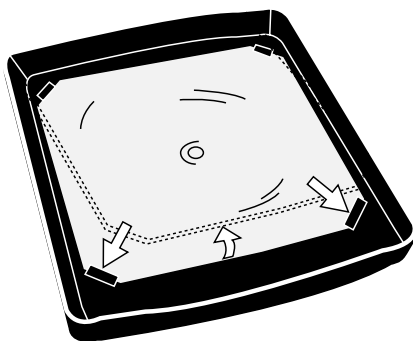
To order accessories, please call 1-800-676-2487.

STORAGE

1. Controls should be in OFF position.
2. Store power cord in base compartment.
3. Protect unit from dust as much as possible.

FRESNEL LENS REMOVAL

Should it be necessary, the Fresnel lens can be removed by pressing fresnel release latches as shown below:



Information on Lamp Warranty

Projection lamps are warranted by the lamp manufacturer and not by the equipment manufacturer. If you have a lamp which you believe to be defective, contact the manufacturer of that particular lamp for the appropriate warranty replacement.

A BULB, Inc.
134 Golden Gate Ave., Suite B
San Francisco, CA 94102
1-888-882-2852

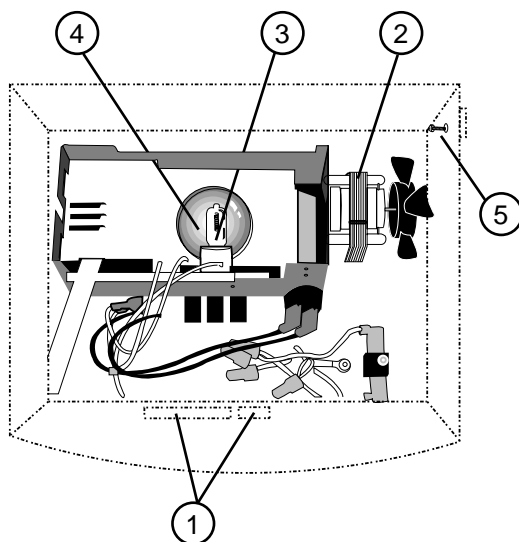
WIKO Ltd.
10490 W. 164th Place
Orland Park, IL 60462-5495
1-800-524-1754

Osram-Sylvania Products, Inc.
100 Endicott St.
Danvers, MA 01923
1-888-677-2627

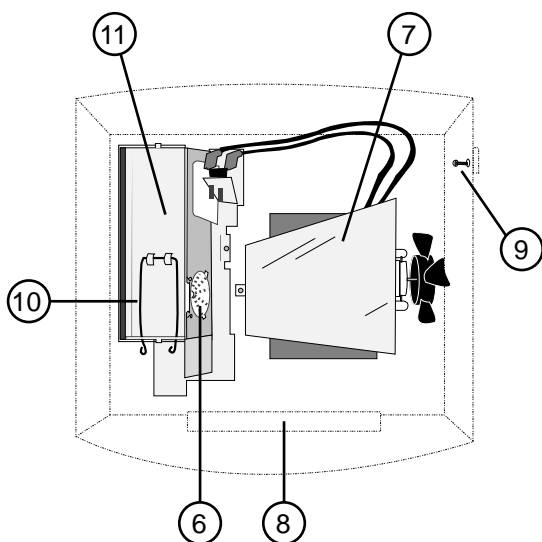
General Electric Company
1501 South 19th Street
Mattoon, IL 61938
1-800-435-2677

INTERNAL PARTS

2000 LUMEN MODELS



3000 & 4000 LUMEN MODELS



- 1. SAFETY INTERLOCK SWITCH
- 2. COOLING FAN
- 3. LAMP
- 4. REFLECTOR
- 5. MAST LOCK SCREW
- 6. LAMP

- 7. MIRROR
- 8. SAFETY INTERLOCK SWITCH
- 9. MAST LOCK SCREW
- 10. RETAINER CLIP
- 11. LAMP HOUSING COVER

5 YEAR LIMITED WARRANTY

This Dukane projector is warranted to the original purchaser for a period of five (5) years from the original purchase date – in normal operating conditions – against defects in material and workmanship . DUKANE CORPORATION EXPRESSLY DISCLAIMS ALL OTHER WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

DURING THE WARRANTY PERIOD, DUKANE CORPORATION'S LIABILITY FOR ANY DEFECTIVE PRODUCT (except for the lamp, which is subject to whatever warranties the manufacturer may provide) IS LIMITED TO THE REPAIR OR REPLACEMENT OF PRODUCT AT DUKANE CORPORATION'S OPTION. REPLACEMENT PRODUCTS MAY BE NEW OR USED (used units will not exceed hours of defective unit). The following are not covered by the limited warranty and Dukane Corporation shall not be liable for:

1. Any product which is not distributed in the U.S.A. or Canada by Dukane Corporation or an authorized dealer .
2. Normal decrease in lamp light output over time.
3. Damage, deterioration or malfunction resulting from:
 - Accident, misuse, abuse, neglect, improper ventilation, fire, dust, smoke, water , lighting or other acts of nature, unauthorized product modification, or failure to follow instructions supplied with the product (including proper maintenance of air filters).
 - Repair or attempted repair by anyone other than a Dukane Corporation authorized service center.
 - Any shipment of product (claims must be presented to the carrier).
 - Removal or installation of the product.
 - Any other causes which do not relate to a product defect.
 - Use of the product beyond normal operating conditions. Normal operating conditions are defined as product use not in excess of 8 hours per day and 260 days per year .
4. Cartons, carry cases, shipping cases, batteries, or any accessories used in connection with the product.
5. Service required as a result of third party components.
6. Product used as commercial rental units

Dukane corporation will pay labor and material expenses for covered items, but Dukane Corporation will not pay for the following:

1. Removal or installation charges.
2. Cost of technical adjustment, set-up, maintenance, or adjustment of user controls.
3. Payment of shipping and related charges incurred in returning the product for warranty repair .

Dukane Corporation disclaims all liability for incidental or consequential damage of any kind, including all damages arising out of any interruptions in operation of the product and all damages to software.

No person, firm, or representative is authorized to assume any obligation or to make any warranty on behalf of the Dukane Corporation other than as stated above.

Audio Visual Products

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E-mail: avserdpt@dukcorp.com • Internet: www.dukcorp.com/av

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